

REMARKS/ARGUMENTS

In the Office Action mailed July 24, 2007, claims 1-15, 17-22, 24, and 26-40 were rejected. In response, Applicant hereby requests reconsideration of the application in view of the proposed amendments and the below-provided remarks. Applicant respectfully submits that the proposed amendments place the claims in condition for allowance or in better condition for appeal.

For reference, a proposed amendment is presented for claim 2. In particular, the proposed amendment to claim 2 recites “the customizable directory descriptor” to maintain consistency of the terminology presented in the claim. This proposed amendment is supported by the originally filed specification.

Claim Rejections

Claims 1-14, 17-22, 26, 27, 29-36, and 38-40 were rejected under 35 U.S.C. § 102(e) as being anticipated by Sharon et al. (U.S. Pat. Pub. No. 2003/0229707, hereinafter Sharon). Additionally, claims 15, 24, 28, and 37 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sharon in view of Brown (U.S. Pat. No. 6,839,825, hereinafter Brown). However, Applicant respectfully submits that these claims are patentable over Sharon and Brown for the reasons provided below.

Independent Claim 1

Applicant respectfully submits that claim 1 is patentable over Sharon because Sharon does not disclose all of the limitations of the claim. Claim 1 recites “a self-descriptive binary data structure” (emphasis added) and “a data structure descriptor descriptive of the data structure, the data structure descriptor identifying the location of the target data set within the data field” (emphasis added).

In contrast to the language of claim 1, the cited reference does not disclose all of the limitations of the claim. In particular, Sharon does not disclose a binary data structure. Sharon merely describes ASCII data structures, which are not binary data structures. Specifically, Sharon describes S-record and Intel HEX data formats that are ASCII (text) containing one record per line. Sharon, paragraph 13, lines 1-2. Sharon

also describes a streamlined format or data structure (designated as an “iAN file”) that is similar to a conventional S-record. Sharon, paragraph 21, lines 1-6. Although the streamlined format differs significantly from the conventional S-record format in order to eliminate some of the data overhead of the conventional S-record format, according to Sharon (Sharon, paragraph 22, lines 1-2; paragraph 23, lines 1-3), the content of the streamlined format is nevertheless ASCII and/or HEX characters. For example, the data field of the exemplary streamlined format shown in Figure 3 contains the ASCII string “7C631B787C631B783C...,” which is the same as the combined ASCII contents of the data fields of the three S-Records shown in Figure 2.

As a matter of clarification, it may be helpful to consider the common understanding of binary and ASCII data representations. In general, binary data structures use combinations of two values (e.g., “0” and “1”) to represent the corresponding data. In contrast, ASCII data structures use combinations of as many as 128 different standard codes (e.g., “A, B, C... a, b, c... 1, 2, 3...” as well as some punctuation and several non-printing control characters) to represent the corresponding data. The differences between using two values (i.e., binary data structures) compared to 128 values (i.e., ASCII data structures) can be significant, for example, in terms of data conversions, processing time, and storage requirements. Similarly, HEX data structures are not binary data structures because HEX data structures use 16 codes values (e.g., 0, 1, 2... D, E, F”) to represent the corresponding data. Thus, ASCII and HEX codes are not binary values, and ASCII and HEX data structures are not binary data structures. Hence, the ASCII and HEX data of Sharon is not binary data, and the ASCII and HEX S-record and streamlined formats of Sharon are not binary formats.

Moreover, even if Sharon were to disclose a binary data structure, Sharon nevertheless does not disclose a data structure descriptor to identify the location of a target data set within a data field of a self-descriptive binary data structure. As explained in the present application, the binary data structure is self-descriptive because the data structure descriptor indicates the location of the target data set within one of the data segments. Brief Summary, paragraph 10, lines 5-7. However, none of the data structures described in Sharon (S-record, Intel HEX, or streamlined iAN format) includes a data structure descriptor to identify a location of a target data set within a data field of the

same data structure. Sharon merely describes an address portion of an S-record line which indicates to the target device (the device receiving the data transmission) that the transmitted data is to be loaded into the target device's memory at the indicated memory address. Sharon, paragraph 17; paragraph 20, lines 4-7. In other words, the data start address of the S-record merely indicates where to store the data on the target. The data start address of the S-record or the streamlined data format does not indicate a location of a target data set within a data field of the transmitted data structure. Furthermore, Sharon does not appear to disclose a target data set within a data field of the described data structures. Thus, the S-record and the streamlined data format are not "self-descriptive" because the S-record and the streamlined data format do not include a data structure descriptor to identify the location of a target data set within a data field of the data structure.

Therefore, Sharon does not disclose all of the limitations of the claim because Sharon does not disclose a binary data structure or a self-descriptive data structure with a data structure descriptor to identify the location of a target data set within a data field of a self-descriptive binary data structure. Thus, Applicant submits claim 1 is patentable over Sharon because Sharon does not disclose all of the limitations of the claim. Accordingly, Applicant respectfully requests that the rejection of claim 1 under 35 U.S.C. § 102(e) be withdrawn.

Independent Claims 13, 18, 27, 29, and 40

Applicant respectfully submits that independent claims 13, 18, 27, 29, and 40 are also patentable over the combination of cited references for at least one of the reasons stated above in regard to the rejection of independent claim 1. Each of claims 13, 18, 27, 29, and 40 recites at least one limitation related to a binary data structure, a self-descriptive data structure, or a data structure with a data structure descriptor to identify the location of a target data set within a data field of a self-descriptive binary data structure. Thus, although the language of these claims differs from the language of claim 1 and the scope of these claims should be interpreted independently of claim 1, Applicant respectfully asserts that the remarks provided above in regard to the rejection of claim 1 also apply to the rejections of claims 13, 18, 27, 29, and 40. Accordingly, Applicant

respectfully submits claims 13, 18, 27, 29, and 40 are patentable over Sharon and requests that the rejections of these claims under 35 U.S.C. § 102(e) be withdrawn.

Dependent Claims

Given that claims 2-12, 14, 15, 17, 19-22, 24, 26, 28, and 30-39 depend from and incorporate all of the limitations of the corresponding independent claims 1, 13, 18, 27, and 29, which are patentable over the cited reference, Applicant respectfully submits that dependent claims 2-12, 14, 15, 17, 19-22, 24, 26, 28, and 30-39 are also patentable over the cited reference based on allowable base claims. Additionally, each of claims 2-12, 14, 15, 17, 19-22, 24, 26, 28, and 30-39 may be allowable for further reasons, as described below. Accordingly, Applicant requests that the rejections of claims 2-12, 14, 17, 19-22, 26, 30-34, 36, 38, and 39 under 35 U.S.C. § 102(e) and the rejections of claims 15, 24, 28, and 37 under 35 U.S.C. § 103(a) be withdrawn.

In regard to claims 2, 19, and 30, Applicant respectfully submits that these claims are patentable over Sharon because Sharon does not disclose all of the limitations of the claims. Claim 2 recites “a customizable directory descriptor, the customizable directory descriptor configured to provide a directory of the data stored in each of the data fields within the data structure” (emphasis added). Claims 19 and 30 recite limitations related to similar subject matter. In contrast, Sharon does not disclose a customizable directory descriptor, as recited in the claims. The cited portion of Sharon merely addresses the streamlined format (i.e., the iAN file), which only includes a data start address field, a CRC field, and a data field. None of these fields is described as including a customizable directory descriptor to provide a directory of the data stored in the data field. Therefore, Sharon does not disclose all of the limitations of the claims because Sharon does not disclose a customizable directory descriptor, as recited in the claims.

In regard to claims 3, 20, and 31, Applicant respectfully submits that these claims are patentable over Sharon because Sharon does not disclose all of the limitations of the claims. Claim 3 recites “the target data set comprises a bootstrap executable, the bootstrap executable configured to reference the customizable directory descriptor and to identify a location of a second target data set within the data structure using the customizable directory descriptor” (emphasis added). Claims 20 and 31 recite limitations

related to similar subject matter. In contrast, Sharon does not disclose a customizable directory descriptor, as explained above. Hence, Sharon also fails to disclose referencing a customizable directory descriptor or identifying a location of a second target data set using the customizable directory descriptor. Therefore, Sharon does not disclose all of the limitations of the claims because Sharon does not disclose referencing or identifying operations using the customizable directory descriptor, as recited in the claims.

In regard to claims 5 and 33, Applicant respectfully submits that these claims are patentable over Sharon because Sharon does not disclose all of the limitations of the claims. Claim 5 recites “a data structure version descriptor configured to indicate a version of the data structure” (emphasis added). Claim 33 recites limitations related to similar subject matter. In contrast, Sharon does not disclose a data structure version descriptor to indicate a version of the data structure. Although Sharon mentions that program upgrades may be downloaded from time to time as new versions become available (Sharon, paragraph 3, lines 3-4), the recognition that program updates are updated in versions is insufficient to disclose a data structure version descriptor to indicate the version of the data structure. Moreover, Sharon does not disclose any type of contents within the S-record or the streamlined format which include a version indicator. Therefore, Sharon does not disclose all of the limitations of the claims because Sharon does not disclose a data structure version descriptor, as recited in the claims.

In regard to claim 6, Applicant respectfully submits that claim 6 is patentable over Sharon because Sharon does not disclose all of the limitations of the claim. Claim 6 recites “a data structure name descriptor configured to indicate a name of the data structure” (emphasis added). In contrast, Sharon does not disclose a data structure name descriptor to indicate a name of the data structure. The cited portion of Sharon merely describes conventional S-record and Intel HEX formats. The conventional S-record format includes a type field, a record length field, a data start address field, a data field, and a check sum field. Sharon, Figure 2. However, the conventional S-record does not include a data structure name field to indicate a name of the data structure. Additionally, Sharon does not describe the Intel HEX format as including a data structure name field. Therefore, Sharon does not disclose all of the limitations of the claims because Sharon does not disclose a data structure name descriptor, as recited in the claim.

In regard to claim 8, Applicant respectfully submits that claim 8 is patentable over Sharon because Sharon does not disclose all of the limitations of the claim. Claim 8 recites “a data structure count descriptor configured to indicate a number of the plurality of data segments within the data structure” (emphasis added). In contrast, Sharon does not disclose a data structure count descriptor to indicate a number of data segments within the data structure. The cited portion of Sharon merely describes that the conventional S-record format may be an S0 record type. However, Sharon does not describe the S0 record type as indicating a number of data segments within the data structure. Moreover, the conventional S-records merely have one data field per record line, so there appears to be no need to indicate the number of data fields within each record line. Furthermore, Sharon does not appear to describe any fields for the S-record format to indicate how many record lines might be in each S-record. Additionally, the streamlined format described in Sharon also only has one data field, so there appears to be no need to indicate the number of data fields within each iAN file using the streamlined format. Therefore, Sharon does not disclose all of the limitations of the claims because Sharon does not disclose a data structure count descriptor, as recited in the claim.

CONCLUSION

Applicant respectfully requests reconsideration of the claims in view of the proposed amendments and remarks made herein. A notice of allowance is earnestly solicited. If the Examiner believes a telephone interview would expedite the prosecution of this application, the Examiner is invited to contact the attorney listed below

Respectfully submitted,

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